Form C-104 Rev. 02/2009

# VALUE ENGINEERING CHANGE PROPOSAL MISSOURI DEPARTMENT OF TRANSPORTATION

Conceptual Proposal	Date 2-19-10	
Contract ID 091120-503	Job No. <u>J5P0648D</u>	
County Miller 51	Original Bid Cost \$5,226,719.50	
Contractor Emery Sapp & Sons	By Josh Doerhoff	
Designed By MoDOT	Phone 573-445-8331	
VECP# 10-15 (to be completed by C.O	.) VECP Or PDVECP	
Base. We believe that the planned areas for much more cost effective manner. All area constructed in existing rock cuts or in areas.	posed change(s). Advantages/Disadvantages to eliminate approximately 11,625 SY of 18" Rock Fill or Rock Fill Base can be stabilized and constructed in a as that we are to place 18" of Rock Fill Base are either a that we believe Rock Fill was already used. In lieu of oposes to place either 4 or 6 inches of baserock to provide	
2. Estimate of reduction in construction costs.	\$26,223.26 to \$47,882.27	
<ul> <li>3. Prediction of any effects the proposed change maintenance and operations.  None</li> <li>4. Anticipated date for submittal of detailed charge specifications.</li> </ul>		
	2-19-10	
	(date)	
5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.		
3-5-10 Blasting	g must take place prior to paving operations.	
(date)	(effect)	
6. Dates of any previous or concurrent submiss		
(da	ate and/or dates)	

## \*\* Portion Below This Line To Be Filled Out by MoDOT \*\*

from 18" to 4" ( Rock Fill Base ( Base Rock Price	osal would require either a profile change or additional material for or 6". There is a concern about trapping water next to the roadway to be used in the widening of Westbound Existing Route 54 for the es are higher than the 2008 Unit Bid Prices. If approved, these price proval of this V.E. Proposal provided the above comments are addressed.	off ramp. The Type 1 es need justified. I
_	Mechan K. O'Malley Submitted By Resident Engineer	2/22/10 Date
Comments: Further Ren	er oul discussion of this proposal he	ve determinal
- that the materi	er and disuroin of this proposal be a based on the following: al left in place and whilited in li- found to be equal to or better than puts bound be used and be deplicated	en of Plains 18" Loose material, and
Approval Recommended	District Engineer	3 18 (10 Date
Rejection Recommended	V District Eligineer &	Date
Comments:		
Approval Recommended		
Rejection Recommended	Federal Highway Administration Required for FHWA Full Oversight Projects	Date
Comments:		
Agree with	district comments.	
	David D. Garas	3-19-10
Approval  Rejection	State Construction and Materials Engineer BAW	Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA Value Engineering Administrator - MoDOT, P. O. Box 270, Jefferson City, MO 65102



140 Walriut Sr. Kansus City, MO 64106 O: 816,221 3500 F: 816:421,9333 2602 N. Stadium Blvd Columbia, MO 65202 O: 573,445,8331 535) E. Siatë Hwy. AA Springfield, MO 65803 O: 417:833:9915 F: 417:833:9981

February 19, 2010

Mr. Mike O'Malley Missouri Dept. of Transportation 93 Morgan Street Camdenton, MO 65020

RE:

VE Eliminate Rock Fill Base Route 54, Miller County Job No. J5P0648D

Mr. O'Malley:

Emery Sapp & Sons would like to propose to eliminate approximately 11,625 SY of 18" Rock Fill Base. We believe that the planned areas for Rock Fill Base can be stabilized and constructed in a much more cost effective manner. All areas that we are to place the 18" Rock Fill Base are either to be constructed in existing rock cuts or in areas that we believe Rock Fill was already used.

Our proposal includes elimination of approximately 5,659 cy of Unclassified Excavation on Horse Shoe Bend Expressway that is required to make 11,625 SY of 18" Rock Fill Base. In lieu of the Rock Fill Base we will place 4-6 inches of Type 1 Aggregate Base and keep the paving thickness the same as planned. We do not believe it is necessary to change the PCCP Depth's in these areas since MoDOT has designed and constructed similar 4 lane projects on Hwy 67 in Madison Co using the same pavement and base course design as we are proposing.

Approval of this Value Engineering Proposal will not only save money but will also improve the level of safety as well as lessen the inconvenience for the traveling public during the construction stages of the project. The elimination of the excavation and blasting of the Rock along Horse Shoe Bend will prevent any chance of damage or injury to the traveling public caused by blasting near the existing travel way of Hwy 54.

If our proposal is accepted the only area that will require 18" Rock Fill Base would be the connection of Horse Shoe Bend and Existing Hwy 54. All other paving areas would be stabilized by existing ground in previous rock cut or fill areas as well as 4 – 6 inches of Type 1 Aggregate Base.

Attached are two scenarios showing a breakdown of the savings. We believe it may be to more beneficial to both parities if the determination of the depth of baserock needed be decided once the excavation of the existing roadway has been completed. Please review the attached breakdown and let us know as soon as possible if the Rock Fill Base can be eliminated. This decision is critical because the blasting for this material will need to take place prior to starting anything else on the project.

Sincerely,

Emery Sapp & Sons, Inc.

Josh Doerhoff Project Manager

# Miller Co Rt 54 J5P0648D

Value Engineering Breakdown to Eliminate Rock Fill Base

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	×	X Unclassified Excavation	5,659 CY	CY/	×	\$	9.50	/CY	↔	53,760.50
احد	×	Placing Rock Base (18 IN) Thick)	11,625 84	84	×	↔	6.00	/SY	\$	69,750.00
<u></u>	×	6" Type 1 Baserock	11,625 SY	SY	×	\$	8.37	/SY	\$	(97,287.47)
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**Total Savings** 

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26,223.26

Miller Co Rt 54 J5P0648D

Value Engineering Breakdown to Eliminate Rock Fill Base

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_	×	X  Unclassified Excavation	5,659 CY	S	×	\$	9.50	/CY	↔	53,760.50
_	$\sqrt{}$	X Placing Rock Base (18 IN) Thick)	11,625 SY	SY	×	ક્ક	6.00	/SY	<del>(S)</del>	69,750.00
<u>-</u>	¥	1 X 4" Type 1 Baserock	11,625 SY	SY	×	\$	6.51	YS/	\$	(75,628.46)
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**Total Savings** п 47,882.27

# VALUE ENGINEERING CHECK SHEET

## TYPE OF WORK

(Check one that applies)

- □ Bridge/Structure/Footings
- □ Drainage Structures (RCP, RCB, CMP's, ect.)
- □ TCP/MOT
- □ Paving (PCCP, ect.)
- X Grading/MSE Walls
- □ Signal/Lighting/ITS
- □ Misc.

#### SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

The contractor proposes to use in place material in lieu of 18" rock base. This would also eliminate the need for excavation in this area. The contractor would place 4" of type 5 base rock that would be daylighted to provide drainage.

# SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. there are special instructions, make note of them here.	If